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MONTHLY REPORT  
INSTALLATION AND MAINTENANCE BRANCH  
ENGINEERING STAFF

1 July - 31 July 1962

25X1A

1. Due to the decrease in trouble reports submitted to the Branch, it appears as though we are nearing the end of the "burning-in" periods at all Headquarters area Signal Centers. Other than [REDACTED] and emergency requirements, we are now able to cope with the daily work load on a routine basis.

2. We have evaluated various types of portable distortion analyzers for use by Wire Equipment Technicians on field trips and have determined that the [REDACTED] Model DMS-1 will more than satisfy our requirements. Four of these items are on order and will be placed in use during the next reporting period.

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[REDACTED]  
Chief, Installation and  
Maintenance Branch, OC-E

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GROUP 1  
Excluded from automatic  
downgrading and  
declassification

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BRANCH SUPPLY SECTION

A. Fiscal Year 1962

A total of \$135,534.35 was expended for the fiscal year ending 30 June 1962.

B. Fiscal Year 1963

As of 20 July 1962 the total expenditures for Fiscal Year 1963 have been \$23,410.55.

ELECTRONIC MAINTENANCE SECTION

A. Microwave

The microwave system is giving us some problems concerning the distortion on the teletype link between [REDACTED] and Headquarters Signal Center. Some distortion was found in the linkage between Headquarters [REDACTED]. The telephone company was informed, and it was reduced accordingly. "Back to back" patches are being made to isolate the distortion area or areas. 25X1A6a

STATSPEC

B. KY-1

1. The activation of two new circuits is still pending due to lack of equalizers being fabricated by the telephone company. The KY-1 units with phones and connecting cables have been installed at both ends and await only the equalizers to activate the circuits.

2. New WE-500 phones are being obtained by Commo Security to replace the existing phones.

C. KY-5

1. The KY-5 unit is in daily operation, Monday through Friday, from 0900 to 1645. This is on a phone-to-phone operation. The Kellogg switchboard is not in use at this time. A new applique unit for [REDACTED] is on order by Equipment Engineering Section to replace one that was not suited for this type of operation.

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2. All WE-500 phones have been installed at Langley, adjusted for 60 cycle ringing, painted brown and tested out through the switchboard to the KY-5 unit.

D. Very-High-Frequency

1. Normal coverage was provided during the month of July.

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- 2 -

25X1A6d 2. A new fan motor is being installed in the base repeater unit at [REDACTED] to replace one with defective bearings.

WIRE MAINTENANCE SECTION

A. Section Activities

1. The Washington outgoing Multiple Addressee position was disconnected in the Relay Section, moved and reinstalled in the Manual Crypto Branch room. This position consists of one receive reperf cabinet and two page printer cabinets. Existing cables were used to connect the transmitting ASR in the Relay Section to the new location of the equipment. Proper jumpers to connect the cables were made within the main frame room.

25X1A5a1 2. Representatives [REDACTED] visited the Wire Maintenance Section to demonstrate their respective equipment for analyzing teletype signals. As a result of these demonstrations and further evaluation tests performed by Wire Maintenance Section personnel, four Distortion Measuring Sets (DMS-1) were ordered [REDACTED]

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3. The installation of our Bendix Sonic Cleaner has been completed to the point where it is now usable. When the hot air exhaust duct for the dryer portion is installed, the project will be completed. A number of teletype units have already been cleaned and the results are very satisfactory.

4. Two HW-19A crypto devices were installed in place of the old 131-B-2 tables in the Relay Section. These will be used on "call-up" circuits. Ducting has been installed and cable pulled for these and future HW-19A installations.

5. The installation of Signal Bell kits has been completed on all receive reperfs in the Relay Section. These bells are used to alert operators for "Y" traffic.

6. A new rack was installed in the main frame room. Three each CSR-2 were mounted and connected to appropriate classified circuits.

7. Also in the frame room three active circuits were rewired to be compatible for use with the CSR's.

8. The following work has been completed in the 6th floor [REDACTED] Signal Center:

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a. All CSR's programmed for the unclassified patch panel have now been installed.

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- 3 -

b. Work is in progress on the installation of CSR-2's in the classified patch panel.

c. The dual HW-19A installation formerly located in the room behind the Signal Center has been moved into the main Signal Center area. In the process, a low type rack was exchanged for the KW-26 type rack for housing the HW-19's and HW-10's.

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9. [REDACTED] solid state relays were received for evaluation, and the following results were found:

a. Three were returned to the factory because they physically would not fit in the socket.

b. Three overheated and produced garbling.

c. Two are still operating on the [REDACTED] receive circuits.

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B. Emergency Power

1. 200 KW Generator

Both diesels were run under load for a total 8.1 hours. Daily, weekly and monthly maintenance was performed. This consumed a total of one hundred and twenty (120) man hours. No minor or major repairs were required.

2. 30 KW Generator

This unit was run a total of 9.2 hours under load. Eighty-one (81) man hours were expended on routine maintenance and repair. One major breakdown was experienced on the twentieth of July. Due to high crankcase pressure, the rear oil seal was blown. After removing the flywheel, ring gear, and rear housing, we were able to determine that no new parts were needed. It was suspected that this seal might be used as a safety device in the event that a high pressure should occur in the crankcase. This suspicion was confirmed after a phone call [REDACTED] and a talk with [REDACTED] Representative to C.I.A. This breakdown did not cause any communications outage.

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3. To date, the test on the thermocouplers has not been performed by GSA due to their high volume of priority work.

4. The newly designed override clutches mentioned in the June Monthly Report have not been received as of this date.

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- 4 -

5. The total load of the generating units as of the first of July was the following:

200 KVA Total power consumed - 154 KVA  
30 KVA Total power consumed - 15 KVA

C. Trouble Reports

25X1A2d1 1. Preventive maintenance is up to date in all areas except the [REDACTED] Signal Center.

2. This Section has cleared a total of two hundred and forty-eight (248) troubles from the following areas:

Langley Relay	- 155	
Langley SSCB	- 66	
Langley [REDACTED]	- 10	25X1A2d1
Outside Area	- 11	
1717 "H" Street	- 6	

D. Overtime

Eighty-eight (88) hours of overtime were worked this month as compared with four hundred and forty-eight (448) for June.

MECHANICAL MAINTENANCE SECTION

A. Inspected 91 miscellaneous items, hand tools, generators, spare parts, etc., for shipment and storage.

25X1A B. Made weekly service checks of emergency generators and 6ST units [REDACTED]

REHAB. SHOP

A. One Model B, Mark I and one Model C, Mark II Tinytots on Account 180 were completely overhauled and checked out during this reporting period. These units will be PTI'd in the near future.

B. One ASR unit was received from stock. This unit was assembled, wired per specific requirements, thoroughly checked out and shipped to the field on Voucher 63-5002 [REDACTED]

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C. Two ASR units, four slide drawer shelves, a KW-26 rack and the crypto components for a full duplex HW-19A configuration were received from stock.

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- 5 -

This equipment was assembled, wired per the present Full Duplex HW-19A specifications and thoroughly checked out. Work on this project was performed on a crash basis expending thirty-seven hours of overtime to meet the deadline requirement. This equipment was shipped on Voucher 63-30030 [REDACTED] on schedule.

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25X1A6a D. One KSR unit was received from stock. This unit was assembled, wired for receive only, checked out and shipped to the field on Voucher 63-5197 [REDACTED] Instructions were rendered to Mr. [REDACTED] on assembly and wiring of this unit.

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E. Two M-28 type TD repreforator sets on Account 180 were degreased, re-wired and adjusted to bring equipment within specified requirements and range. These units will be delivered [REDACTED] at a later date.

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F. Assistance was rendered to Mr. [REDACTED] by the Rehab. Shop personnel in fabrication of the mobile mounting of the two Model B, Mark I Tinytots presently held in the Rehab. Shop for future requirements.

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G. Fabrication of the Tape Factory for Station 822C ([REDACTED]) is now in progress. This project will be completed and reported on in the August reporting period.

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H. Five incoming vouchers totaling 32 items were processed and 14 outgoing vouchers totaling 70 items were processed.

# ADMINISTRATIVE

## EOD

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[REDACTED]

30 July 1962  
30 July 1962

## RETURNEES

25X1A9a

[REDACTED]

9 July 1962  
30 July 1962

## TDY

25X1A9a

[REDACTED]

25 June - Present  
12 July - 13 July 1962  
13 July - 18 July 1962

25X1A

## PCS

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[REDACTED]

9 July 1962  
12 July 1962  
27 July 1962

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